MILITARY SPECIFICATION SHEET

ELECTRON TUBE, RECEIVING

TYPE 12SK7Y 1/

The complete requirements for procuring the electron tube described herein shall consist of this document and the latest issue of Specification MIL-E-1.

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

DESCRIPTION: Pentode, rf remote cutoff

© Outline --- 8-1 (EIA)

Base --- B8-21 (low-loss phenolic)

Envelope --- MT8

Cathode --- Coated unipotential

Base connections:

Pin No.	---	1	2	3	4	5	6	7	8
Element	---	sh	h	g3	g1	k	g2	h	a

ABSOLUTE-MAXIMUM RATINGS:

Parameter:	Ef	Eb	Ec1	Ec2	Ec3	Pp	Pg2	© Ehk	Rg1	© Alt
Unit:	V	Vdc	Vdc	Vdc	Vdc	W	W	v	Meg	ft
Maximum:	13.8	330	---	140	---	4.4	0.44	100	---	(See note 1)
Minimum:	11.4	---	---	---	---	---	---	---	---	
TEST CONDITIONS (1):	12.6	250	-3	100	0	---	---	---	---	---
TEST CONDITIONS (2):	12.6	28	0	28	0	---	---	---	2	---

GENERAL:

Qualification - Required

1/ See note 4

© denotes changes

METHOD	REQUIREMENT OR TEST	CONDITIONS	AQL (PERCENT DEFECTIVE)	INSPECTION LEVEL OR CODE	SYMBOL	LIMITS MIN	LIMITS MAX	UNIT
	Quality conformance inspection, part 1							
1266	Total grid current	Test condition (1) (see note 2)	0.65	II	Ic1	0	-1.0	μAdc
1256	Electrode current (1) (anode)	Test condition (1)	0.65	II	Ib	6.5	12.0	mAdc
1306	Transconductance (1)	Test condition (1)	0.65	II	Sm	1,600	2,400	μmhos
1231	Emission	Eb = Ec1 = Ec2 = Ec3 = 30 Vdc (see note 2)	0.65	II	Is	65	---	mAdc
Ⓒ 1201	Short and discontinuity detection		0.4	II	---	---	---	---
	Quality conformance inspection, part 2							
1031	Low-frequency vibration	Test condition (1); Rp = 2,000 ohms	---	---	Ep	---	100	mVac
1301	Heater current		---	---	If	138	162	mA
Ⓒ 1336	Heater-cathode leakage		---	---	Ihk	---	20	μAdc
1256	Electrode current (2) (anode)	Test condition (2)	---	---	Ib	1.3	2.6	mAdc
1256	Electrode current (1) (screen)	Test condition (1)	---	---	Ic2	1.6	3.4	mAdc
1256	Electrode current (2) (screen)	Test condition (2)	---	---	Ic2	0.35	1.0	mAdc
1306	Transconductance (2)	Test condition (1) Ec1 = -35 Vdc	---	---	Sm	1	30	μmhos
1306	Transconductance (3)	Test condition (2); Esig = 0.05 V (see note 3)	---	---	Sm	950	1,450	μmhos
1331	Direct-interelectrode capacitance	Without shield	---	---	Cg1p	---	0.0035	pF
		Without shield			Cin	3.8	6.2	pF
		Without shield			Cout	5.2	8.8	pF
Ⓒ 1101	Secureness of base, cap, or insert		---	---	---	---	---	---
Ⓒ 1211	Insulation of electrodes		---	---	---	---	---	---
Ⓒ 1105	Permanence of marking		---	---	---	---	---	---
	Quality conformance inspection, part 3							
---	Life-test provisions	Group A; Ehk = 100 V	---	---	---	---	---	---
---	Life-test end point (500 hours)	Transconductance (1)	---	---	Sm	1,300	---	μmhos

NOTES:

1. See "Reduced pressure (altitude) rating", and altitude, maximum peak voltage.
2. This test to be performed at the conclusion of the holding period.
3. Signal coupled to grid through 1 μF capacitor.
4. Tube types 6SK7GTY and 12SK7GTY are hereby deleted from this specification sheet. For replacement purposes, use tube type 6SK7WA for tube type 6SK7GTY and 12SK7Y for tube type 12SK7GTY.

Custodians:
Army - EL
Navy - EC
Air Force - 85

Review activities:
Army - EL
Navy -
Air Force - 11, 85
DSA - ES

User activities:
Army - WC
Navy - AS, OS, MC, CG, SH
Air Force - 19

Preparing activity:
Navy - EC

Agent:
DSA - ES

(Project 5960-2401-66)